UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/477,876	01/05/2000	CHRISTOPHER M. HERRING	P04658	9857

34456 7590 02/09/2006

TOLER & LARSON & ABEL L.L.P.
5000 PLAZA ON THE LAKE STE 265
AUSTIN, TX 78746

EXAMINER	
HYUN, SOON D	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/477,876	HERRING ET AL.	
	Examiner	Art Unit	
	Soon D. Hyun	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,25,29 and 36-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,25,29 and 36-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-6, 25, and 36-52 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1, 25, 29, 42, 48, 49, and 52 are rejected under 35 U.S.C. 102(e) as being anticipated by Chennakeshu et al (U.S. Patent 6,414,945).

Regarding claims 1, 42, 48, 49, and 52, Chennakeshu et al discloses a system for concurrent wireless voice and data communications comprising:

a first transceiving unit (a base station , col. 9, lines 4-5) coupled to a voice network and to a data network (col.8, lines 57-66)

a second, mobile transceiving unit (a mobile unit , col. 9, lines 4-5);

the first transceiving unit operable to wirelessly transmit voice information from the voice network over a first dedicated set of time slots (one dedicated time slot in each frame of FIG. 5a and a first set of dedicated time slots in plurality of frames, col. 2, lines

18-36) and data information (SMS information, col. 10. line 25) from the data network over a second dedicated set of time slots (one dedicated time slot in each SMS frame and a set of dedicated time slots in plurality of SMS frames, col. 10, lines 28-45) of the plurality of time frames, wherein each time slot of the first and second dedicated set of time slots has a fixed time slot position for the plurality of time frames.

The second mobile transceiving unit receives and separates the voice information and the data information from the first transceiving unit.

Chennakeshu et al does not explicitly teach that a carrier frequency of the channel changes in a pseudo random manner, but the frequency hopping scheme is inherent required in a GSM system to reduce interference.

Regarding claims 25 and 29, Chennakeshu et al further teaches that a time slot containing data information comprises a forward error correction code (col. 8, line 66-col. 9. line 27).

Regarding claim 36, it is inherent for GSM of Chennakeshu et al to allocate another dedicated time slots (a third and fourth dedicated time slots) for the second mobile unit for duplex communications.

Regarding claim 37, it is inherent for GSM of Chennakeshu et al to allocate same number of time slots for voice communications for the first and second transceiving units.

Regarding claim 38, it is inherent for GSM of Chennakeshu et al to allocate same number of time slots for SMS message communications for the first and second transceiving units.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2-6, 39-41, 43-47, 50, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chennakeshu et al.

Regarding claims 2-6, Chennakeshu et al does not explicitly teach that the data network is a V.90 modem coupled to PSTN, or Ian ISDN modem a DSL modem, or a cable modem coupled to a CATV system, or an Ethernet network as recited in the claims. It is apparent to those of skill in the art that a cable modem or an Ethernet is normally used for the data network interface. **Official Notice** is taken in that use of such modems for interface of data networks or Ethernet as a data network. In addition no unexpected results can be seen from the use of such data networks

Regarding claim 39, it will be apparent to those skilled in the art that the number of the first predefined set of time slots is equal to the number of the second predefined set of time slots when traffic volume for voice and data are same. Therefore, it would have been obvious to one having ordinary skill in the art to allocate same number of time slots for the voice and data to transmit same traffic volume.

Regarding claims 40 and 41, it will be apparent to those skilled in the art that the number of predefined set of time slots for downstream and upstream could be different

when the traffic volume is different. Therefore, it would have been obvious to one having ordinary skill in the art to allocate different number of time slots for downstream and upstream to transmit different traffic volume.

Regarding claim 43, refer to the discussion for claim 36.

Regarding claims 44 and 45, refer to the discussion for claims 37 and 38.

Regarding claim 46, refer to the discussion for claim 39.

Regarding claim 47, it would have been obvious to one having ordinary skill in the art to incorporate a less or higher hopping rate as long as no unexpected results can be seen from the use of the hopping rate.

Regarding claim 50, it would have been obvious to one having ordinary skill in the art the method of Chennakeshu et al into ISM frequency band as long as no unexpected results can be seen from the use of the ISM band.

Regarding claim 51, it would have been obvious to one having ordinary skill in the art to incorporate 75 carriers for frequency hopping as long as no unexpected results can be seen from the use of the 75 carriers.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon D. Hyun whose telephone number is 571-272-3121. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S, Hyun
01/24/2006

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600